

is disposed downstream of the first cooling side of the Peltier element in the closed air path for adding heat energy to the air dried by the cooling side of the Peltier element passing thereacross resulting in air in the second condition for delivery to the washing basket.

In conventional dishwashers, the heating of the washing liquid results in a high energy requirement and the thermal energy required for each heating phase must be produced anew by means of electrical heating elements. The known heating systems also have the disadvantage that the heating of the washing liquid in the "clear rinse" partial program section and the processes in the "drying" partial program section are associated with a high energy requirement and the thermal energy required is lost after the drying process. See, e.g., Page 2, lines 26-34 and page 3, lines 1-2.

In stark contrast, the present invention provides at least one Peltier element disposed within the closed air flow path in a manner wherein a cooling side of the Peltier element is disposed within the air flow path and is configured for removing heat energy from and thereby drying air in the first condition passing thereacross, and a second warming side of the Peltier element is disposed downstream of the first cooling side of the Peltier element in the closed air path for adding heat energy to the air dried by the cooling side of the Peltier element passing thereacross resulting in air in the second condition for delivery to the washing basket. See, e.g., page 3, lines 4-8, 15-19, 21-33; and page 8, lines 4-32.

That is, the at least one Peltier element is used for cooling and thereby drying, and also for heating the air guided through the washing basket. For example, as explained in the present application, the cooling side (e.g., heat conducting fins 13) of the Peltier element is provided for heat conduction of the air. The dried air then flows downstream to the second warming side (e.g., heat conducting fins 14) of the same Peltier element where the very dry air is heated.

Thus, the present invention can provide very dry and heated air to the inlet of the washing basket in an economical manner and while keeping the related energy costs as low as possible. Moreover, as a result of the present invention, substantially less heating

of the items to be treated is required compared with the prior art, thereby providing a substantial energy savings.

Furthermore, as a result of the cooling of the air, the moisture absorption capacity of the air is lowered and the moisture fraction of the air is precipitated as condensate. Also, as a result of heating of the air, the moisture absorption capacity of the air is increased again on each passage through the guidance system which results in improvement in the drying result and/or a shortening of the drying time. Additionally, as a result of the closed air system, any exchange of contaminated air from the environment is completely eliminated, preventing any back contamination of the treated objects.

The Rejections under 35 U.S.C. § 103

The Office Action rejects claims 9-16 under 35 U.S.C. § 103(a) as being unpatentable over the Hoyle reference (UK Patent Application No. 2375812). Applicants respectfully traverse this rejection.

The Hoyle reference does not disclose or suggest at least one Peltier element operatively associated with the air guidance system and disposed within the closed air flow path in a manner wherein a cooling side of the Peltier element is disposed within the air flow path and is configured for removing heat energy from and thereby drying air in the first condition passing thereacross, and a second warming side of the Peltier element is disposed downstream of the first cooling side of the Peltier element in the closed air path for adding heat energy to the air dried by the cooling side of the Peltier element passing thereacross resulting in air in the second condition for delivery to the washing basket, as recited in independent claim 9.

As explained above, these features are important for providing very dry and heated air to the inlet of the washing basket in an economical manner and while keeping the related energy costs as low as possible, thereby increasing the moisture absorption capacity of the air, improving the drying result, shortening the drying time, and/or preventing any back contamination of the treated objects, each of which providing a substantial energy savings.

The Response to Arguments of the Office Action asserts these limitations were “previously addressed in the motivation for recirculation the air below: It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoyle to create a dishwashing machine which conserves energy (pg. 2 of Hoyle) to achieve the expected result. The rejection is maintained.”

In the present rejection, the Office Action explicitly acknowledges that the Hoyle reference does not teach that the workspace is a dishwasher, containing a washing basket, which recirculates (same airstream) the conditioned air. However, the Office Action asserts that it would have been an obvious matter of design choice to modify the Hoyle reference to create a dishwashing machine which conserves energy (pg. 2 of Hoyle) to achieve the expected result.

The Office Action further asserts that the alleged modifications of the Hoyle reference still does not teach an additional condenser located in the recirculation loop. However, to make up for these additional deficiencies, the Office Action once again asserts that it would have been an obvious matter of design choice to modify the Hoyle reference, as already modified above based on an allegedly obvious matter of design choice, to create a dishwashing machine with sufficient condensing power to conserve energy to achieve the expected result. See pages 2-3.

Contrary to the assertions in the Office Action, The Hoyle reference does not teach or suggest all of the features of the claimed invention and these features would not have been an obvious matter of design choice. Moreover, it is not appropriate to rely solely on case law as the rationale to support this rejection, since Applicants have demonstrated the criticality of these features, and the Office Action fails to establish a prima facie case with respect to these features allegedly being an obvious matter of design choice.

Contrary to the assertions in the Office Action, Applicants the Hoyle reference does not teach or suggest these features.

Instead, as shown in Figure 1, the Hoyle reference discloses an open system where exhaust gas is heated by a heat pump then exhausted to atmosphere. The heat

pump then injects heat into the dryer air stream upstream of the heater, as seen in the drawing. The air taken from the drying chamber is not reheated by the heat pump.

In stark contrast, the present invention includes a closed system where the same airstream is acted on by both sides of the same Peltier element and then is reintroduced into the washing basket.

The Hoyle reference fails to disclose or suggest all of the features of the claims. Indeed, the Hoyle reference lacks any teaching whatsoever of at least one Peltier element operatively associated with the air guidance system and disposed within the closed air flow path in a manner wherein a cooling side of the Peltier element is disposed within the air flow path and is configured for removing heat energy from and thereby drying air in the first condition passing thereacross, and a second warming side of the Peltier element is disposed downstream of the first cooling side of the Peltier element in the closed air path for adding heat energy to the air dried by the cooling side of the Peltier element passing thereacross resulting in air in the second condition for delivery to the washing basket, as recited in independent claim 9.

As explained above, these features are important for providing very dry and heated air to the inlet of the washing basket in an economical manner and while keeping the related energy costs as low as possible, thereby increasing the moisture absorption capacity of the air, improving the drying result, shortening the drying time, and/or preventing any back contamination of the treated objects, each of which providing a substantial energy savings.

Moreover, in stark contrast to the assertions in the Office Action, these features would not have been an obvious matter of design choice. Furthermore, it is not appropriate to rely solely on case law as the rationale to support this rejection, since Applicants have demonstrated the criticality of these features, and the Office Action fails to establish a prima facie case with respect to these features allegedly being an obvious matter of design choice.

As discussed in MPEP § 2144 and 2144.04, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may

use the rationale used by the court. [...] If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

In the present application, Applicants have demonstrated that these features are important for providing very dry and heated air to the inlet of the washing basket in an economical manner and while keeping the related energy costs as low as possible, thereby increasing the moisture absorption capacity of the air, improving the drying result, shortening the drying time, and/or preventing any back contamination of the treated objects, each of which providing a substantial energy savings.

Applicants respectfully submit that it is not appropriate to rely solely on case law as the rationale to support this rejection, since Applicants have demonstrated the criticality of these features, and therefore, the Office Action fails to establish a prima facie case.

Moreover, the Office Action makes the conclusory statement that such modifications to the Hoyle reference would have been obvious "to create a dishwashing machine which conserves energy (pg. 2 of Hoyle) to achieve the expected result." Appellants respectfully submit that such a conclusory statement is insufficient to provide a prima facie case for obviousness because the Office Action fails to provide an adequate rationale for combining the prior art as required by *KSR International v. Teleflex Inc.* 82 U.S.P.Q. 2d 1385 (2007).

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." (In re Kahn, 441 F.3d 977, 988 (CA Fed. 2006) cited with approval in KSR).

The Office Action provides absolutely no hint of any articulated reasoning with any rationale underpinning to support a legal conclusion of obviousness. As such, the Office Action fails to present a prima facie case for obviousness.

The Office Action has provided no articulated reasoning to modify the Hoyle reference to arrive at the claimed invention, except from using Appellant's invention as a template through hindsight reconstruction of Appellant's claims.

For at least these reasons, Applicants respectfully submit that the office action fails to establish a prima facie case of obviousness. The Office Action Hoyle reference does not disclose or suggest the subject matter defined by independent claim 9.

Applicants respectfully request withdrawal of these rejections.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of Claims 9-16 are respectfully requested. If the Examiner has any questions regarding this amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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